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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,322	02/06/2004	Sam Michael Sarmast	200314430-1	8533

22879 7590 06/07/2006

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EXAMINER
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GARCIA JR, RENE

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/774,322

Applicant(s)

SARMAST ET AL.

Examiner

Rene Garcia, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 10, 16, 26 and 33 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 17-25 is/are allowed.
- 6) ☒ Claim(s) 11, 15, 27, 30 and 32 is/are rejected.
- 7) ☒ Claim(s) 12-14, 28, 29 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Objection to Abstract is withdrawn.
2. Objection to claims 16, 17 and 20 are withdrawn.
3. The indicated allowability of claims 16 and 33 (previously presented now incorporated into claims 11 and 27) is withdrawn in view of the newly discovered reference(s) to Helterline et al. (US 6,039,430) and Barbehenn et al. (US 5,363,134). The term "protocol" has been interpreted to have a broad meaning and provides for interpretation to define steps/procedures required for operation of printer. Rejections based on the newly cited reference(s) follow.

### ***Claim Objections***

4. Claims 12, 13 and 14 are objected to because of the following informalities: Grammar errors [clean up flow of claims]: Claim 12, line 3 insert "of" between "value at"; Claim 13, line 1 insert "of" between "value at"; Claim 14, line 1 insert "of" between "value at". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 27 and 28 are rejected under 35 U.S.C. 112, first paragraph, because the claims recite a single means claims i.e., where a means recitation does not appear in combination with another recited element of means, therefore is subject to an undue breadth rejection. See MPEP § 2164.08(a).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 27 is rejected under 35 U.S.C. 102(b) as being anticipated by Helterline et al. (US 6,039,430).

**Helterline et al. discloses the following claimed limitations:**

- \*regarding claim 27, fluid ejection device/**ink jet printing system, 10/** (fig. 1),  
comprising:
  - \*plurality of fluid ejection elements/**printing components, 14/** (fig. 1; col. 2, line 51)
  - \*plurality of identification elements/**information storage device, 38/** (fig. 2b; col. 4, lines 7-11; each printing component/14/ contains one)
  - \*plurality of lines/**electrical contacts, 42/** (fig. 2a; col. 4, lines 14-26) each coupled to a group of the plurality of fluid ejection elements/14/
  - \*means for encoding information (col. 1, lines 57-64) regarding a protocol (col. 2, lines 51-58; protocol is a broad term and for purposes of examination is understood to mean steps/procedures required for operation) of operating the fluid ejection elements/**printing components, 14/**, the means for encoding/**memory storage device, 38/** coupled to at least some of the plurality of lines/**electrical contacts, 42/** (col. 4, lines 7-26; memory storage device includes parameters for operation which are used in a protocol for printing to operate the printing component/14/), wherein the information regarding the protocol further comprises information

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for providing signals to the identification elements (col. 5, lines 13-16; lines 33-41 – controller/26/ uses information from all both memory units/38/ to accomplish printing i.e. supply signals to identification elements which are connected to fluid ejection elements/14/ for ejection of ink)

9. Claims 11, 15, 27, 30 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Barbehenn et al. (US 5,363,134).

**Barbehenn et al. discloses the following claimed limitations:**

\*regarding claims 11 and 27, method of identification of a fluid ejection device/**print head, 41/** (fig. 5), comprising:

\*providing at least a first signal on one or more lines/**input lines, 48B/**, the one or more lines coupled to one or more fluid ejection elements/**array circuit, 44/** (fig. 5; col. 4, lines 31-40; col. 4, lines 12-19; resistor array circuit/44/ is coupled to nozzles for firing and coupled to input line/48B/ thru address drive lines/48A/) that eject fluid

\*determining, responsive to the at least first signal, first identification information (poll address line A0; col. 5, lines 22-29)

\*providing at least a second signal to one or more elements on the fluid ejection device that are configured to provide second identification information (poll address line A2; col. 5, lines 22-29)

\*determining the second identification information responsive to at least the second signal (poll address line A2; col. 5, lines 22-29)

\*determining a plurality of operating of parameters (col. 5, lines 13-17) of the fluid ejection device based upon the first and second identification information, wherein the fluid

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ejection device is a print head and the first identification information comprises a protocol for rejecting ink from the print head (programmable information tells controller/42/ how to handle data to send signals to head drive circuitry/43/ in-turn to array circuit/44/)

\*regarding claim 15, first identification information comprises a protocol of operation (manufacturing tolerances – col. 5, lines 13-17) of the fluid ejection device/**print head, 41/** and wherein providing at least a second signal to one or more elements on the fluid ejection device that are configured to provide second identification information comprises providing signals based upon the protocol (programmable information tells controller/42/ how to handle data to send signals to head drive circuitry/43/ in-turn to array circuit/44/ - limitations provide for signals with relation to ejection elements and only states that ejection elements provide second identification information nothing relating the protocol to second information)

\*regarding claim 27, fluid ejection device/**print head, 41/** (fig. 5), comprising:

\*plurality of fluid ejection elements/**array circuit, 44; fig. 5/**

\*plurality of identification elements/**integrated identification circuit, 45/** (figs. 5 and 9; col. 4, lines 12-19 and 57-68)

\*plurality of lines/**input lines, 48B/** (fig. 5, lines 17-19) each coupled to a group of the plurality of fluid ejection elements/**array circuit, 44/** (fig. 5; col. 4, lines 12-19; resistor array circuit/44/ is coupled to nozzles for firing and coupled to input line/48B/ thru address drive lines/48A/)

\*means for encoding information (col. 1, line 57- col. 2, line 8) regarding a protocol of operating the fluid ejection elements/**array circuit, 44/**, the means for encoding coupled to at least some of the plurality of lines/**input lines, 48B/**, wherein the information regarding the protocol further comprises information for providing signals to the identification elements (col. 5, lines 13-16; col. 7, line 60 – col. 8, line 9 – programmable information tells controller/42/ how to handle data to send signals to head drive circuitry/43/ in-turn to array circuit/44/)

\*regarding claim 30, wherein the plurality of lines comprise address lines (col. 4, lines 63-68)

\*regarding claim 32, wherein the plurality of lines comprise data lines (col. 3, lines 40-61)

***Allowable Subject Matter***

10. Claims 1-9 and 17-25 are allowed.

11. Claims 12-14, 28, 29 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating allowable subject matter of claims 12-14 is the inclusion of the method step of a fluid ejection device that includes first identification comprises determining a value at least one pull down resistor. It is this step found in each of the claims, as it is claimed in

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the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.


***Communications with the USPTO***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Garcia, Jr. whose telephone number is (571) 272-5980. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Rene Garcia Jr.  
05/06

  
STEPHEN MEIER  
SENIOR PATENT EXAMINER